



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

595 SOUTH STATE STREET, ELGIN, ILLINOIS 60123

THOMAS V. SKINNER, DIRECTOR

847-608-3131

FAX: 847-608-3139

June 13, 2000

McHenry Shores Water Company
c/o Mr. Thomas P. Mathews, President
7314 Hancock Drive
Wonder Lake, Illinois 60097

Re: **McHenry Shores Water Company - 111-5020**
May 30, 2000 Inspection Report

Dear Mr. Mathews:

An engineering evaluation of the **McHenry Shores Water Company** community water supply has been completed. Field inspection was made on May 30, 2000, by Mr. Chris Johnston and Mr. Manny Abad of this office. Mr. T. P. Mathews, President and Mr. Jeff Claus, Vice President were present during this inspection.

The Illinois Environmental Protection Agency conducts periodic evaluations of all community water supplies to determine if their ongoing programs for monitoring, maintaining the water supply, and providing appropriate information to the water users meet the requirements of the Illinois Pollution Control Board's public water supply regulations and related standards. The reason for this work is that if the people in a community are to cooperate and use a common water supply, they must feel that their system is properly constructed, operated and maintained.

Our inspection identified aspects of the water system that may not comply with current standards or regulatory requirements. These items are detailed in attachment "A" of this letter.

Please respond to these findings in writing within 45 days. Your response should describe the steps that have been, or will be taken to correct these deficiencies. You may request additional time to respond by calling this office at 847-608-3131.

I also request that you review the enclosed "Public Water Supply Data Sheets". Monitoring requirements are determined by the information included on these data sheets, making it vital that you inform us of any errors or other inaccuracies.

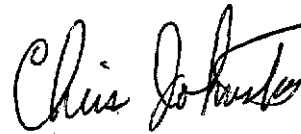
McHenry Shores Water Company - 111-5020
June 13, 2000

I appreciate the cooperation and courtesy extended during this survey. If you have questions or comments regarding this evaluation, do not hesitate to contact this office at (847)-608-3131.

Very truly yours,



John J. Dalessandro
Senior Public Service Administrator,
Division of Public Water Supplies
Illinois Environmental Protection Agency



Chris Johnston
Environmental Engineer

cc: McHenry County Health Department
Illinois Commerce Commission
~~Mr. Jeff Claus, Vice President~~
Julie Janssen, IDPH-DDH
State Water Survey

ATTACHMENT "A" VIOLATIONS, DEFICIENCIES AND RECOMMENDATIONS

VIOLATIONS OF CURRENT CONSTRUCTION STANDARDS:

1. Well #3 (ID 01145) was constructed with IEPA emergency construction permit 2196-FY1995. In accordance with **35 IL. Adm. Code 602.104**, approval of "As-Built" plans are required for the permit to be issued. On August 8, 1995, Mr. Dave Cook of our Permit Office submitted a project review letter to your engineer (, Mr. Patrick McKiernan) for the project. Mr. McKiernan did not submit the required information, and on April 12, 1996, the permit was *denied*. The use of this well may be a permit violation. Please contact our Springfield Permit Office (1-217-782-1724) and obtain an "As-Built" permit for this improvement.
2. Storage capacity for the supply consists of a 100,000 gallon elevated tank. A 10,000 gallon hydropneumatic storage tank exists at the wellhouse but is only used as a control vessel for the automatic pressure switch. Average daily pumpage in 1999 was 155,618 gallons. The minimum storage capacity (or equivalent capacity) for systems not providing fire protection shall be equal to the average daily consumption. Install a minimum additional 56,000 gallons of storage, in accordance with **Section 7.0.1 of the Recommended Standards for Water Works**. Additional storage (beyond the 56,000 gallons required by the public water supply regulations) may be required to meet fire protection requirements.
3. The facility has "flush valves," (gate valves on the end of uncapped water mains) that discharge below ground. These are cross-connections, since water remaining in the portion of the main behind the gate valve will be unpotable. At all locations where these "flush valves" are located, install flushing devices which discharge above the ground surface and provide a velocity of at least 2.5 feet per second in the water main being flushed, in accordance with **35 IL. Adm. Code Section 607.104 and Section 8.1.6 of the Recommended Standards for Water Works**.
4. A portion of the distribution system along Gregg Drive and Balley Road terminates in a dead-end. Due to aesthetic complaints and low chlorine residuals the supply has run a pipe from the dead-end, under Gregg Drive, ending in a constant flush open discharge approximately one-foot above a channel of the Fox River. This "constant flush valve" is only a *temporary* solution and is a cross-connection. If the level of the river rises, the end

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of this pipe will be submerged. If the pipe is submerged, and low or negative pressure occurs in the distribution system, unpotable water could be back-siphoned into the system **(35 IL. Adm. Code Section 607.104)**. Remove the flush hydrant and properly tie in the dead-end such that a loop is formed with the distribution system, in accordance with **Section 8.1.6 of the Recommended Standards for Water Works**.

In the interim, contact our Water Pollution Control Section at 1-217-333-0447 and verify if a National Pollutant Discharge Elimination System (NPDES) Permit is required for the existing discharge **(35 IL. Adm. Code, Section 653.113)**.

5. On May 17, 2000, Mr. Chris Johnston and Mr. Manny Abad of this Office observed flushing of facility hydrants due to a Illinois Commerce Commission visit. The hydrants were flushed through 2½-inch nozzles. Hydrants must provide a velocity of at least 2.5 feet per second in the water main being flushed. The facility should verify this rate is being obtained, and if necessary, flush through each hydrant's 4½-inch pumper nozzle, in accordance with **Section 8.1.6 of the Recommended Standards for Water Works**.
6. The water system has no dedicated auxiliary power supply. Auxiliary generators capable of operating well and chemical treatment pumps or connections to at least two independent public power sources are necessary to provide water pressure during a power outage. At the time of inspection it was reported the supply has portable generators; however, the facility does not have any automatic system alarms and the may lose pressure before the generators could be connected. Provide dedicated auxiliary power as required by **Sections 2.6 and 3.2.1.3 of the Recommended Standards for Water Works** (note: if an auxiliary generator is installed, see *Recommended Standards for Water Works* for protection of the water supply from fuel storage or fuel line location).
7. Illinois Commerce Commission flow tests have shown pressure at the following hydrants falls below 20 psi when opened: 25, 20, 19, 16, 14, 9, 8, 7, and 6. Please notify this office (1-847-608-3131) and issue a boil-order when these hydrants are flushed, and whenever distribution pressure drops below 20-psi, in accordance with **35 IL. Adm. Code, Section 607.103**. An answering machine is operational during non-working hours. In addition, distribution systems shall be designed to maintain a minimum pressure of 20 psi measured at the ground surface in all parts of the system under fire-fighting demand or other similar emergency operating conditions **(35 IL. Adm. Code, Section 653.106)**. Any future design of the system should take these flow tests into account.

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8. Maintain the finished water fluoride ion concentration within the required range of 0.9 milligrams per liter (mg/L) to 1.2 mg/L. In the last 12 months four samples have shown levels both above and below the 0.9 to 1.2 mg/L range. In addition, the operator's tested results show an average 0.25 mg/L discrepancy from the Laboratory tested results.

Supplemental fluoridation and natural fluoride levels need to be tested and carefully monitored to verify the correct fluoride dosage, and the fluoride test kit must be either correctly calibrated or replaced with an Agency approved model (**35 IL. Adm. Code, Sections 611.125, 653.501, and 653.701, and Act 40/7a. of the Illinois Compiled Statutes**).

9. Well #2 (ID 20151) does not have a smooth-nosed sampling tap. Smooth-nosed sampling taps are necessary so that representative water samples for bacteriological and chemical analyses can be collected directly from the well. Although the well has a "faucet" type tap, a smooth nose sampling tap is necessary in that this type of sampling tap is easier to keep clean and less likely to harbor bacteria. Install a smooth-nosed sampling tap, in accordance with **Section 2.10 of the Recommended Standards for Water Works**.
10. The following wells do not have air lines or other ways of measuring / monitoring water levels:
 - A. Well #2 (ID 20151).
 - B. Well #3 (ID 01145).

The level of water in a well can decline because of over pumping, seasonal variation, or changes to the aquifer's characteristics. Since rapid changes rarely occur, records of the water level in a well can be used to anticipate problems before they create a hardship on the community. Install air lines or other ways of measuring / monitoring the water levels at well #1 and well #2, in accordance with **Section 3.2.7.6 of the Recommended Standards for Water Works**. Once air lines are installed, the supply should test the static water levels and pumping water levels at least once a month and report these values on the daily operating reports.

11. The top of the casing for well #2 (ID 20151) is not tightly sealed. This opening could allow dust, dirt, insects, etc. to enter the well and contaminate the water bearing formation. Tightly seal the opening at the top of the casing in accordance with **Section 3.2.7.4 of the Recommended Standards for Water Works**.

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12. At the time of inspection the chlorine residual in the phosphate solution was unknown. Please note that stock phosphate solution must be disinfected by carrying 10 milligrams per liter (mg/L) free chlorine residual. This is necessary to prevent bacterial or other growths developing in the solution. Maintain a free chlorine residual of at least 10 mg/L in the phosphate solution as required by **35 IL. Adm. Code Section 653.202 and Section 4.6.5 of the *Recommended Standards for Water Works*.**
13. The following refers to the 100,000 gallon elevated tank:
 - A. The ladder for the 100,000 gallon elevated tank does not have a ladder guard. Ladder guards must be provided for the safety of employees who access the tank. Install a ladder guard or other device to ensure the safety of workers, in accordance with **Section 7.0.12 of the *Recommended Standards for Water Works***. Comply with all Illinois Department of Labor and Occupational Safety and Health Act regulations.
 - B. The overflow for the elevated tank does not have a splash pad. A splash pad must be provided in order to prevent overflow runoff from eroding the foundation of the tank. Install a splash pad under the overflow such that the bottom of the overflow pipe is at least 12 but not more than 24-inches above the top of the splash pad, in accordance with **Section 7.0.7 of the *Recommended Standards for Water Works***.
 - C. At the time of inspection the grass around the wellhouse and elevated tank overflow was very high. All overflow pipes for storage tanks shall be located so that any discharge is visible. Maintain the grass at a sufficient height such that overflow discharge from the elevated tank is visible, in accordance with **Section 7.0.7 of the *Recommended Standards for Water Works***.
14. The 10,000 gallon hydropneumatic tank does not have bypass piping. Bypass piping is necessary to permit operation of the water system when the tank is out of service for maintenance or repairs. Install bypass piping for the hydropneumatic tank, in accordance with **Section 7.2.3 of the *Recommended Standards for Water Works***.
15. The following refers to permits:
 - A. Please note, in accordance with **35 IL. Adm. Code, Sections 652.101 and 653.115**, construction permits shall be obtained by the official custodian of a

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community water supply prior to all alterations, changes or additions to an existing community water supply which may affect the sanitary quality, mineral quality or adequacy of the supply. This includes: *replacement of well pumps which have become inoperable*, replacement of water main, and the installation or relocation of all treatment chemicals. Please call our permit section at 1-217-782-1724 with any questions.

B. Please note the Agency may issue construction and operating permits by telephone (1-217-782-1724), in accordance with **35 IL. Adm. Code, Sections 652.301 and 602.104**, if emergency conditions exist which threaten the safety or adequacy of the water supply.

16. The supply submitted all of the daily operating reports for each month of 1999 in May 2000. Please note that daily operating reports must be submitted *monthly*. Submit copies of the daily operating reports within 30 days of the end of each month, in accordance with **35 IL. Adm. Code 653.605**. *The Agency has requested submitting the daily operating reports monthly since October 19, 1990.*

RECOMMENDATIONS AND SUGGESTIONS:

17. The supply has no low water or power outage alarms. Currently, users notify the supply when pressure is low (lost). By the time pressure has dropped enough to be noticed by users, an emergency situation will have already developed. Alarms should be installed to inform the operator of low water and power outage situations *before* emergency situations develop. In addition, the supply should thoroughly investigate all low pressure problems as they occur.

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Illinois Environmental Protection Agency

Bureau of Water - Division of Public Water Supplies

Inspection Report - Elgin Regional Office

FACILITY NAME	McHenry Shores Water Company			FACILITY NUMBER	111-5020		
PLANT PHONE	1-815-653-2961			COUNTY	McHenry		
INSPECTION DATE	May 30, 2000			INSPECTED BY	Chris Johnston and Manny Abad		
SEND CORRESPONDENCE TO				EXEMPTION / LABORATORY FEE STATUS			
NAME OR ENTITY	Mr. Thomas P. Mathews			CHLORINE (Date)	Not exempt.		
ADDRESS	P.O. Box 189			CERTIFIED OPERATOR (Date)	Not exempt.		
CITY, STATE, ZIP	Wonder Lake, IL 60097			LAB FEE PARTICIPANT (Y/N)	No.		
CONTACT INFORMATION							
CERTIFIED OPERATOR	Mr. Thomas P. Mathews			CLASS	"C"	NUMBER	00956
PHONE	1-815-653-2961			FAX	1-815-653-2081		
PORTABLE PHONE	1-815-482-1401			OTHER	Home: 1-815-653-7171		
OWNER - RESPONSIBLE PERSONNEL	Mr. Thomas P. Mathews			TITLE OR POSITION	President		
PHONE	1-815-653-2961			FAX	1-815-653-2081		
OTHER CONTACTS	NAME		TITLE OR POSITION		PHONE		
	Mr. Jeff Claus		Vice President		1-815-653-2961		
	Mrs. Evelyn Raske		Office Manager		1-815-653-2961		
HOME PAGE ADDRESS	None.						
FACILITY STATUS							
Open		Critical Review	X	Restricted Status		Reason	Low system pressure
							Date 09/17/1992
SERVICE CONNECTIONS						# METERS	
NUMBER OF DIRECT SERVICES						518	518
DIRECT SERVICES OUTSIDE CORPORATE LIMITS						0	0
Residential Customers						518	518
Commercial Customers						0	0
Industrial Customers						0	0
SATELLITE WATER SYSTEMS / INTERCONNECTIONS						FACILITY NUMBER	Source? Customer?
None.						N/A	N/A N/A
ADEQUACY OF SUPPLY							
DATE RANGE	FROM	Jan. 1999	TO	Dec. 1999	PLANT CAPACITY (MGD)	0.52272 MGD	
LIMITING FACTOR FOR PLANT CAPACITY?						Combined capacities of well #1 and well #2.	
ANNUAL PUMPAGE (MG)	RAW	?	FINISHED	56.8703 MG			
AVERAGE DAILY (MGD)	RAW	?	FINISHED	0.155618 MGD			
MAX 7 Day Average (MGD)	RAW	?	FINISHED	0.289 MGD			
Historical MAX 7-Day Average (MGD)	RAW	?	FINISHED	0.289 MGD			
POPULATION	1,813	Estimated or Census Data			Estimated		
How was Estimated Population Figured?						3.5 people per connection	
AVERAGE DAILY PER CAPITA USAGE	86 gpppd	Time to Produce Average Daily (Finished)			7.2 hours		
Time to Produce MAX 7- Day Average (Finished)						13.3 hours	

BRIEF DESCRIPTION OF SYSTEM AND SERVICE AREA

The McHenry Shores Water Company (111-5020) is located in east-central McHenry County, on the southeast side of McHenry (111-0600), and west of the Fox River. The subdivision was started in the mid-1950's and was originally incorporated as the Village of McHenry Shores. In the early 1970's Mr. Mathews bought the McHenry Shores Water Company from the original developer. The City of McHenry annexed the Village of McHenry Shores in the early 1980's. The Public Water Supply consists of two shallow wells, and one pressure system. The facility has two active TAP's (TAP's 02 and 03), which are located in one wellhouse. TAP 01/Well #1 (ID 20150) was properly abandoned on November 5, 1998 due to low production.

TAP 02 receives water from well #2, which operates automatically and supplements the production of well #3. Well #2 (ID 20151, rated 143 gpm @ unknown head) was drilled to a depth of 135 feet, tapping a sand and gravel aquifer. The raw water is disinfected with sodium hypochlorite (12.5% diluted 50%) before combining with water with well #3, and flowing to the distribution system. Well #2 has an iron concentration of 0.82 mg/L, a manganese concentration of 0.02 mg/L, a hardness concentration of 223 mg/L as CaCO_3 , and a natural fluoride concentration of 0.74 mg/L. The production of well #2 has gone down. Prior to the construction of well #3, this resulted in overpumping, entrained air, "cloudy water" complaints, and low pressure complaints. Well #2 has a history of total coliform and non-coliform detections.

TAP 03 receives water from well #3, the "primary" well. Well #3 (ID 01145, rated 220 gpm @ unknown head) was drilled to a depth of 205 feet, tapping a sand and gravel, and dolomite aquifer. The raw water is treated with polyphosphate (WSU 319 diluted 50%) for iron sequestration, supplementally fluoridated with hydrofluosilicic acid (23% diluted to a 2.3% solution), and disinfected with sodium hypochlorite (12.5% diluted 50%) before passing through a 10,000 gallon hydropneumatic tank, combining with water from well #2, and passing to the distribution system. The hydropneumatic tank is only used as a control vessel for the automatic pressure switch and is not used for storage. Well #3 has an iron concentration of 1.0 mg/L, a manganese concentration of 0.0 mg/L, and a natural fluoride concentration of 0.7 mg/L. Well #3 was installed with IEPA emergency construction permit 2196-FY1995. As-built plans were required, but project review letter information was not submitted, and the as-built permit was denied on April 12, 1996. Well #3 has a history of total coliform and non-coliform detections.

The supply has had a history of late sample results, not maintaining proper fluoride residuals, not maintaining chlorine residuals, and numerous complaints for not issuing boil-orders, water shut-offs without notice, rusty water, black water, water with strange odors, cloudy water, and low pressure. The facility is under enforcement, and is on critical review status for low system pressure. Hydrant tests by the ICC show flow pressures below 20 psi at some locations. The supply has "flush valves," or gate valves which when opened discharge water directly below ground (the main behind the valve is not capped). Along the Fox River, a main discharges constantly to flush the system. Storage consists of a 100,000 gallon elevated tank. The distribution system consists of 23,178 feet of 4-inch asbestos-cement (transite) main, 12,604 feet of 6-inch PVC and asbestos-cement main, and 510 feet of 8-inch PVC main. There is a reported 60 feet of elevation difference between the high and low portions of the distribution system. No dedicated emergency power is provided for the supply. The facility does not have any system alarms. The community is served by sanitary sewers. There are six lots remaining which could be served by the supply. A free chlorine residual of 0.2 mg/L was measured in the distribution system on the day of inspection.

TREATMENT APPLICATION POINT SUMMARY											
TAP #	Location or Description	Source Name	Source ID	Status (A, I or X)	Well Depth	Casing Length	Aquifer	Current Production (GPM)	GWUDI Eval. (DATE)	Waivers	
										VOC	SOC
02	Well #2 at base of 0.1 MG elevated tank in wellhouse at 1007 S. Hilltop	Well #2	20151	A	135 feet	124 feet	Sand & Gravel	143 gpm @ unknown head and 15 Hp	Never submitted information	Never Applied	Never Applied
Source Use (Disconnected sources, backups, seasonal use, etc)		One of two sources of water. Well #2 supplements the production of well #3, and operates automatically.									
Bacteriological History (Raw water samples)		No raw water detections in the last 12 months; however, well #2 has had a history of total coliform and non-coliform detections.									
TREATMENT		Disinfectant Used		Fluoridation Chemical Used		Other Chemical Addition		Well Inorganic Statistics:			
		Sodium hypochlorite (12.5% diluted 50%)		None.		None.		Iron conc.: 0.819 mg/L Manganese conc. 0.016 mg/L Hardness as CaCO ₃ : 223 mg/L pH: 7.06 Natural Fluoride conc.: 0.74 mg/L			
		Installation Deficiencies						General Condition of Plant			
		1. The raw water sampling tap for well #2 is not smooth-nosed, well #2 does not have an airline or other means to measure water levels, the casing for well #2 has an opening at the top, and the casing vent is not downturned. 2. No dedicated auxiliary power. 3. The chlorine day tank does not have a protective curbing nor containment. 4. The phosphate solution may not have a 10 mg/L free chlorine residual.						Fair.			
Other Comments regarding this TAP		The production of well #2 has gone down. This has resulted in overpumping, entrained air, and "cloudy water" complaints. Prior to the construction of well #3, lowered production also resulted in low pressure complaints.						Emergency Power		None dedicated. The supply reportedly has portable generators, but no system alarms.	

TREATMENT APPLICATION POINT SUMMARY											
TAP #	Location or Description	Source Name	Source ID	Status (A, I or X)	Well Depth	Casing Length	Aquifer	Current Production (GPM)	GWUDI Eval. (DATE)	Waivers	
										VOC	SOC
03	Well #3 adjacent to and east of wellhouse at 1007 South Hilltop Drive	Well #3	01145	A	205 feet	*144 feet	Sand & Gravel, and dolomite	220 gpm @ unknown head and 20 Hp	Constructed after program	Never Applied	Never Applied
Source Use (Disconnected sources, backups, seasonal use, etc)		"Primary well," or main source of water for the supply.									
Bacteriological History (Raw water samples)		No raw water detections in the last 12 months; however, well #3 has had a history of total coliform and non-coliform detections.									
TREATMENT		Disinfectant Used		Fluoridation Chemical Used		Other Chemical Addition		Well Inorganic Statistics:			
		Sodium hypochlorite (12.5% diluted 50%)		Hydrofluosilicic acid (23% diluted to a 2.3% solution)		Polyphosphate (WSU 319 diluted 50%)		Iron conc.: 1.0 mg/L Manganese conc. 0 mg/L Hardness as CaCO ₃ : 201 mg/L pH: Unknown Natural Fluoride conc.: 0.7 mg/L			
		Installation Deficiencies						General Condition of Plant			
		1. The fluoride, phosphate, and chlorine day tanks do not have protective curbs nor containment. 2. No dedicated auxiliary power. 3. Well #3 does not have an airline or other means to measure water levels. 4. The phosphate solution may not have a 10 mg/L free chlorine residual. 5. Well #3 has not received an as-built permit. 6. The 10,000 gallon hydropneumatic tank does not have bypass piping.						Fair.			
Other Comments regarding this TAP		*The well is gravel packed from 95 to 144 feet. The well has a 6-inch galvanized casing from 0 to 98 feet, a cook s/s 20 slot screen from 98 feet to 108 feet (sand & gravel), a 3-inch galvanized casing from 108 feet to 124 feet, a cook s/s 20 slot screen from 124 feet to 134 feet (sand & gravel), and 3-inch galvanized casing from 134 feet to 144 feet. Below 144 feet, the well is open (dolomite). The well was constructed with emergency permit 2196-FY1995. As-built plans were required, but project review letter information was not submitted, and the as-built permit was denied on April 12, 1996.						Emergency Power		None dedicated. The supply reportedly has portable generators, but no system alarms.	

Service Area / Pressure Zone / Distribution System													
Water Source(s)				TAP 02/well #2 and TAP 03/well #3.									
Location or Description				Service Area Population		No. of Service Connections		Finished Water Storage (Show Capacities)					
								Elevated		Hydropneumatic			
Entire distribution system.				1,813		518		0.1 MG. The Base of the bowl is reported to be at 100 feet. The tank is reported to be 130 feet high.				The supply has a 10,000 gallon hydropneumatic tank at TAP 03; however, the tank is only used as a control vessel for the automatic pressure switch and is not used for storage.	
Maximum System Pressure		Location		Minimum System Pressure		Location		Free Chlorine Residual (mg/l)		Location			
75 psi		Intersection of Gregg & Bull Valley Roads		52 psi		1007 South Hilltop Blvd.		0.2 mg/L		Distribution			
Flushing Program				Fire Protection Provided?		Current Map Available?		Valve Maintenance Program			Notes and Other Observations		
None	Yearly	2x year	More Often	No	Yes	No	Yes	No Valves	No Program	OK			
			Monthly	X			X			X	The distribution system consists of 23,178 feet of 4-inch asbestos-cement (transite) main, 12,604 feet of 6-inch PVC and asbestos-cement main, and 510 feet of 8-inch PVC main. The supply has "flush valves," or gate valves which when opened discharge water directly below ground (the main behind the valve is not capped). There is a reported 60 feet of elevation difference between the high and low portions of the distribution system. Along the Fox River, a main discharges constantly to flush the system (see Attachment A). Some hydrants do not have auxiliary valves. There are six lots remaining in the development.		
Hydrant locations with flow pressure below 20 psi - ICC Hydrant Inspection Report for October 1998													
Hydrant Number		Location		Static Pressure		Flow Pressure		Gallons per minute					
25		Pleasant & Bonnie		60 psi		12 psi		550 gpm					
19		Pleasant & Broadway		62 psi		10 psi		550 gpm					
20		Capri - about middle of block		67 psi		10 psi		560 gpm					
16		Broadway & Hunter Path		45 psi		15 psi		600 gpm					
14		Broadway & Vista Terr.		62 psi		15 psi		710 gpm					
7		Hilltop & Vista Terr.		62 psi		15 psi		710 gpm					
8		Still Hill Dr. & Near Pearl Ave.		62 psi		12 psi		420 gpm					
9		Still Hill Dr. & near Riverside Dr.		70 psi		8 psi		480 gpm					
6		Riverside Dr. & Miller Dr.		67 psi		8 psi		480 gpm					

Operating Reports / Records													
Monthly Reports Being Submitted?			Content of Monthly Reports								Notes and Other Observations		
			Report for each TAP?		Daily Production from Each Well?		Daily Measured Residuals?		Daily Dosage Calculations?				
Yes	No	Late	Yes	No	Yes	No	Yes	No	Yes	No			
		*X	X		X		X		X		*Daily operating reports are sent one time per year.		
Cross Connection control Ordinance													
Does the system have an ordinance?		Date Approved (by IEPA)		Program Enforced?		Do Private Wells Exist in the Service Area?							
Yes	No			Yes	No	Yes		No					
X		11/18/1994		X		X							
Monitoring													
Bacteriological Summary													
Monitoring History (Last 12 Months)				Primary Lab		Phone		FAX					
	Raw	Finished	Distribution										
Number of Samples	24	0	24	McHenry Analytical		1-815-344-4044		1-815-344-2208					
Number Satisfactory	24	0	24	Secondary Lab		Phone		FAX					
Number Invalid	0	0	0										
Number Unsatisfactory	0	0	0	None		N/A		N/A					
Fecal / E. Coli. Positive	0	0	0	Coliform Monitoring Plan Approved?		All Major Portions of system included in Plan?		Chlorine Residuals taken at Sample Sites?		Monitoring FREE Residual?			
				Yes	No	Yes	No	Yes	No	Yes	No		
Monitoring Violations	0	MCL Violations		0	X		X		X		X	X	
Fluoridation Summary (Last 12 months)													
TAP No	No. of Samples	Minimum (mg/l)	Maximum (mg/l)	Average	Violations (list months)		Notes and Observations (Fluoridation)						
Dist.	12	0.74 mg/L	1.85 mg/L	1.10 mg/L	November 1999, September 1999, August 1999, and April 1999		The supply has had a history of not being able to maintain the fluoride dose in the required range. The lab versus operator test results show an average discrepancy of 0.25 mg/L.						
02	?	?	?	?	?		Could not find results.						
03	?	?	?	?	?		Could not find results.						
Viability / Financial Management													
Service Fee (Minimum Charge)			\$6.00 per month		Other source(s) of income used to maintain the water system			None					
Direct Charge (cost per 1,000 gallons)			\$1.93		How does the utility handle customers who fail to pay water bills?			Overdue notice, final notice, home visit for collection, disconnection of service.					
Billing Frequency			Bi-monthly		Does the utility have a fund to cover major repairs?			No					
ICC Regulated? (Y/N)			Yes		Name and phone no. of person responsible for system repairs.			Mr. T.P. Mathews 1-815-653-2961					
Date of Last Rate Increase			June 1999										

PWS Basic Facility Characteristics Change Form

Facility Number: **111-5020** Facility Name: **McHenry Shores Water Company**

Effective Date: **ASAP**

Current Record		Change To
	No. of Service Connections	518
	Population Served*	1,813
	Coliform Samples (RAW)	2 Well #2 - ID 20151 Well #3 - ID 01145
	Coliform Samples (FINISHED)	0
	Coliform Samples (Distribution)	2
	No. of Fluoride Bottles to be sent☆	0
	List TAP No(s) to be monitored for Fluoride	TAP 02 TAP 03
	No. of Coliform Bottles to be Sent	4
	Bottle Recipient Address	McHenry Shores Water Company P.O. Box 189 7314 Hancock Drive Wonder Lake, IL 60097

* Basis of Population and/or Service Connection Change (i.e., 100 homes X 3 People):

☆ Complete only if Participant in Lab Fee program and Supply Requests use of IEPA laboratory for analysis.

⊗ Address must be useable for both US Mail and UPS delivery. If Necessary, List Both.

DATE: June 10, 2000

IEPA Personnel: Chris Johnston and Manny Abad

Mail completed form to Marilyn Turner, IEPA/BOW/CAS/#19, Springfield, IL 62794-9276

FYI - Answers to Commonly Asked Questions

The number of distribution samples required is determined by the population served by the water system (35 IL. Adm. Code 611, Table A). Additional distribution samples may be required by IEPA to accommodate separate distribution systems.

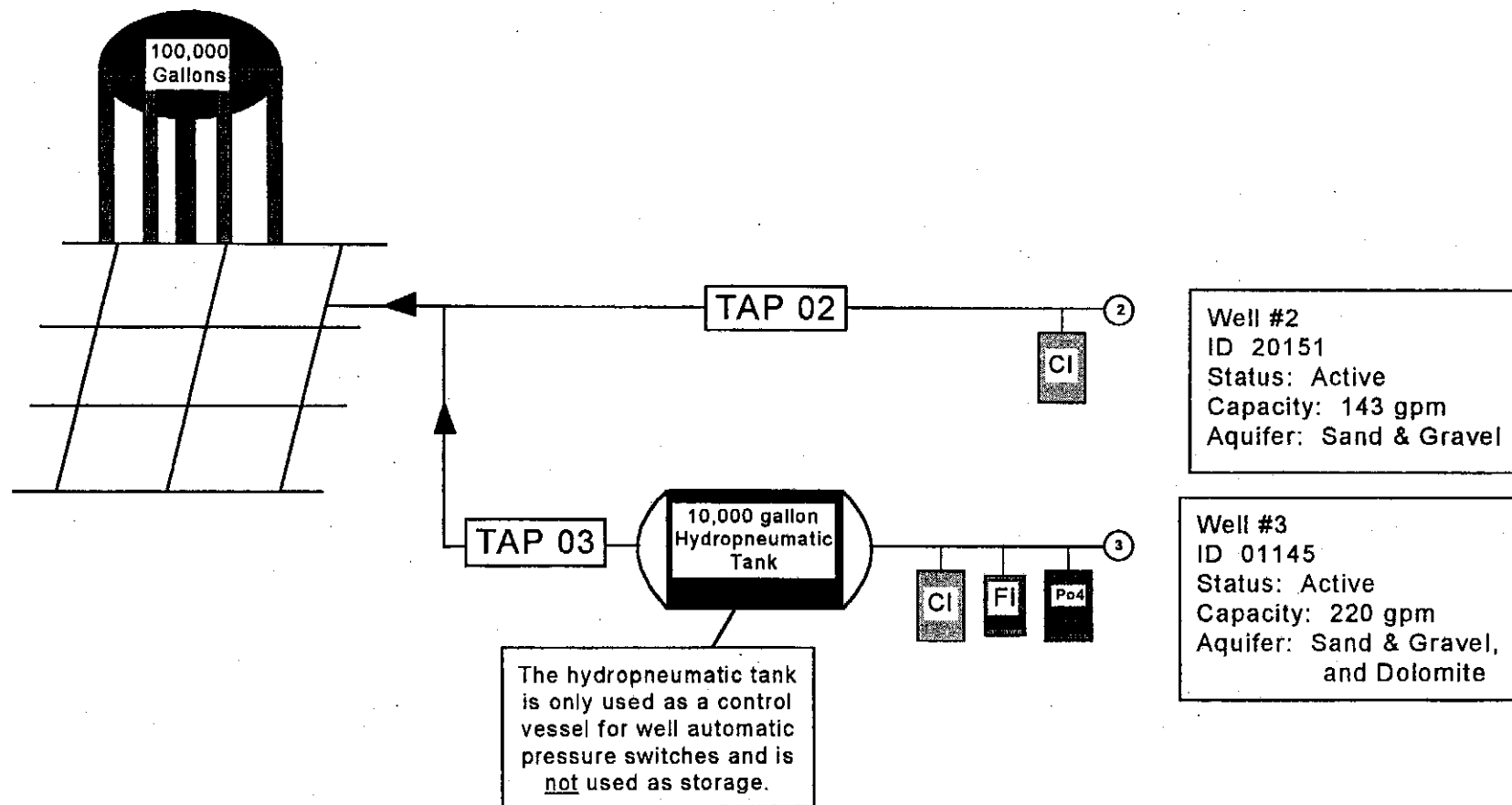
Raw samples are required for systems that add a disinfectant, since problems with the wells or treatment processes may not be detected by distribution samples.

Backup wells that are not in routine use should be monitored quarterly. If an unmonitored well must be used, a boil order must be issued.

Water samples that are invalidated by the laboratory cannot be used for compliance. Invalid water samples must be replaced to avoid a monitoring violation.

REPEAT sampling must be provided for ALL distribution samples found to contain coliform bacteria. Repeat sampling consists of three additional samples. One of the three samples should be taken from the location giving the original positive result. A second sample must be collected from an UPSTREAM location that is within 5 service connections, and the third sample taken from a DOWNSTREAM location, that is also within 5 service connections of the original sample point. If repeat samples are not collected, IEPA must "credit" the water system with three additional positive results.

McHenry Shores Water Company
McHenry County - 111-5020



Colors in accordance with *Recommended Standards for Water Works, Section 2.14*

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